

1 CLAIMS

2 I claim:

1 1. A device for enhancing removal of liquid from fabric, which comprises:
2 a base plate having one or more apertures to serve as extraction nozzles, wherein
3 the total cross-sectional area of the apertures is selected to be that which will increase the
4 extraction power for the vacuum motor with which said base plate is to be utilized.

1 2. The device for enhancing removal of liquid from fabric as recited in claim 1,
2 wherein:
3 the cross-sectional area of each of said apertures is selected to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through said
5 apertures without clogging said apertures.

1 3. The device for enhancing removal of liquid from fabric as recited in claim 1,
2 wherein:
3 the number and shape of the apertures is selected to reduce the ratio of the total
4 distance along all the perimeters of said apertures to the total cross-sectional area of said
5 apertures.

1 4. The device for enhancing removal of liquid from fabric as recited in claim 3,
2 wherein:
3 the cross-sectional area of each of said apertures is selected to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through said
5 apertures without clogging said apertures.

1 5. A device for enhancing removal of liquid from fabric, which comprises:
2 a base plate having one or more apertures to serve as extraction nozzles, wherein
3 the number and shape of the apertures is selected to reduce the ratio of the total distance
4 along all the perimeters of said apertures to the total cross-sectional area of said apertures.

1 6. The device for enhancing removal of liquid from fabric as recited in claim 5,
2 wherein:

3 the cross-sectional area of each of said apertures is selected to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through said
5 apertures without clogging said apertures.

1 7. A device for enhancing removal of liquid from fabric, which comprises:
2 a base plate having one or more apertures to serve as extraction nozzles; and
3 one or more barriers attached to the bottom of said base plate to force any liquid
4 in the fabric toward said apertures as said base plate is moved across the fabric.

1 8. The device for enhancing removal of liquid from fabric as recited in claim 7,
2 wherein:

3 said barriers are so constructed that only a small surface area of said barrier
4 contacts the fabric generally perpendicularly to the original orientation of such fabric.

1 9. The device for enhancing removal of liquid from fabric as recited in claim 7,
2 wherein:

3 the total cross-sectional area of the apertures is selected to be that which will
4 increase the extraction power for the vacuum motor with which said base plate is to be
5 utilized.

1 10. The device for enhancing removal of liquid from fabric as recited in claim 9,
2 wherein:

3 said barriers are so constructed that only a small surface area of said barrier
4 contacts the fabric generally perpendicularly to the original orientation of such fabric.

1 11. The device for enhancing removal of liquid from fabric as recited in claim 9,
2 wherein:

3 the number and shape of the apertures is selected to reduce the ratio of the total
4 distance along all the perimeters of said apertures to the total cross-sectional area of said
5 apertures.

1 24. The device for enhancing removal of liquid from fabric as recited in claim 23,
2 wherein:

3 said means for forcing includes a means for increasing the penetration of said base
4 plate into the fabric.

1 25. The device for enhancing removal of liquid from fabric as recited in claim 23,
2 wherein:

3 the number and shape of the apertures is selected to reduce the ratio of the total
4 distance along all the perimeters of said apertures to the total cross-sectional area of said
5 apertures.

1 26. The device for enhancing removal of liquid from fabric as recited in claim 25,
2 wherein:

3 said means for forcing includes a means for increasing the penetration of said base
4 plate into the fabric.

1 27. The device for enhancing removal of liquid from fabric as recited in claim 25,
2 wherein:

3 the cross-sectional area of each of said apertures is selected to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through said
5 apertures without clogging said apertures.

1 28. The device for enhancing removal of liquid from fabric as recited in claim 27,
2 wherein:

3 said means for forcing includes a means for increasing the penetration of said base
4 plate into the fabric.

1 29. The device for enhancing removal of liquid from fabric as recited in claim 23,
2 wherein:

3 the cross-sectional area of each of said apertures is selected to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through said
5 apertures without clogging said apertures.

1 30. The device for enhancing removal of liquid from fabric as recited in claim 29,
2 wherein:

3 said means for forcing includes a means for increasing the penetration of said base
4 plate into the fabric.

1 31. The device for enhancing removal of liquid from fabric as recited in claim 21,
2 wherein:

3 the number and shape of the apertures is selected to reduce the ratio of the total
4 distance along all the perimeters of said apertures to the total cross-sectional area of said
5 apertures.

1 32. The device for enhancing removal of liquid from fabric as recited in claim 31,
2 wherein:

3 said means for forcing includes a means for increasing the penetration of said base
4 plate into the fabric.

1 33. The device for enhancing removal of liquid from fabric as recited in claim 31,
2 wherein:

3 the cross-sectional area of each of said apertures is selected to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through said
5 apertures without clogging said apertures.

1 34. The device for enhancing removal of liquid from fabric as recited in claim 33,
2 wherein:

3 said means for forcing includes a means for increasing the penetration of said base
4 plate into the fabric.

1 35. A process for enhancing removal of liquid from fabric, which comprises:

2 applying a vacuum force to a base plate having one or more apertures to serve as
3 extraction nozzles; and

4 forcing any liquid in the fabric toward one or more of the apertures in the base
5 plate as a result of the movement of the base plate across the fabric.

1 36. The process for enhancing removal of liquid from fabric as recited in claim 35,
2 further comprising:

3 increasing the penetration of the base plate into the fabric.

1 37. The process for enhancing removal of liquid from fabric as recited in claim 35,
2 further comprising:

3 selecting the total cross-sectional area of the apertures to be that which will
4 increase the extraction power for the vacuum motor with which the base plate is to be
5 utilized.

1 38. The process for enhancing removal of liquid from fabric as recited in claim 37,
2 further comprising:

3 increasing the penetration of the base plate into the fabric.

1 39. The process for enhancing removal of liquid from fabric as recited in claim 37,
2 further comprising:

3 selecting the number and shape of the apertures to reduce the ratio of the total
4 distance along all the perimeters of the apertures to the total cross-sectional area of the
5 apertures.

1 40. The process for enhancing removal of liquid from fabric as recited in claim 39,
2 further comprising:

3 increasing the penetration of the base plate into the fabric.

1 41. The process for enhancing removal of liquid from fabric as recited in claim 39,
2 further comprising:

3 selecting the cross-sectional area of each of the apertures to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through the
5 apertures without clogging the apertures.

1 42. The process for enhancing removal of liquid from fabric as recited in claim 41,
2 further comprising:

3 increasing the penetration of the base plate into the fabric.

1 43. The process for enhancing removal of liquid from fabric as recited in claim 37,
2 further comprising:

3 selecting the cross-sectional area of each of the apertures to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through the
5 apertures without clogging the apertures.

1 44. The process for enhancing removal of liquid from fabric as recited in claim 43,
2 further comprising:

3 increasing the penetration of the base plate into the fabric.

1 45. The process for enhancing removal of liquid from fabric as recited in claim 35,
2 further comprising:

3 selecting the number and shape of the apertures to reduce the ratio of the total
4 distance along all the perimeters of the apertures to the total cross-sectional area of the
5 apertures.

1 46. The process for enhancing removal of liquid from fabric as recited in claim 45,
2 further comprising:

3 increasing the penetration of the base plate into the fabric.

1 47. The process for enhancing removal of liquid from fabric as recited in claim 45,
2 further comprising:

3 selecting the cross-sectional area of each of the apertures to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through the
5 apertures without clogging the apertures.

1 48. The process for enhancing removal of liquid from fabric as recited in claim 47,
2 further comprising:

3 increasing the penetration of the base plate into the fabric.

1 49. A process for enhancing removal of liquid from fabric, which comprises:

2 applying a vacuum force to a base plate having one or more apertures to serve as
3 extraction nozzles; and

4 selecting the total cross-sectional area of the apertures to be that which will
5 increase the extraction power for the vacuum motor with which the base plate is utilized.

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1 50. The process for enhancing removal of liquid from fabric as recited in claim 49,
2 further comprising:

3 selecting the cross-sectional area of each of the apertures to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through the
5 apertures without clogging the apertures.

1 51. The process for enhancing removal of liquid from fabric as recited in claim 49,
2 further comprising:

3 selecting the number and shape of the apertures to reduce the ratio of the total
4 distance along all the perimeters of the apertures to the total cross-sectional area of the
5 apertures.

1 52. The process for enhancing removal of liquid from fabric as recited in claim 51,
2 further comprising:

3 selecting the cross-sectional area of each of the apertures to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through the
5 apertures without clogging the apertures.

1 53. A process for enhancing removal of liquid from fabric, which comprises:

2 applying a vacuum force to a base plate having one or more apertures to serve as
3 extraction nozzles; and

4 selecting the number and shape of the apertures to reduce the ratio of the total
5 distance along all the perimeters of the apertures to the total cross-sectional area of the
6 apertures.

1 54. The process for enhancing removal of liquid from fabric as recited in claim 53,
2 further comprising:

3 selecting the cross-sectional area of each of the apertures to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through the
5 apertures without clogging the apertures.

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